

Notes on Indo-Pacific Scleractinian Corals, Parts 5 and 6

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Part 5

A New Species of *Alveopora* from New Caledonia

A NUMBER OF SPECIMENS of poritid corals sent by Dr. R. L. A. Catala (Aquarium de Nouméa) included several species of *Goniopora* and *Alveopora*, among them a distinctive new form of the latter that is described below. All these corals came from the same site—Banc Gail in the lagoon of Nouméa at a depth of 35–40 m—and included the following species:

Alveopora allingi Hoffmeister

A. mortenseni Crossland

A. catalai sp. nov.

Goniopora bernardi Faustino

G. duofaciata Thiel

G. sp. cf. *G. Great Barrier Reef* 6 of Bernard

G. sp. cf. *G. irregularis* (Crossland) (= *G. octoformis* Milne Edwards and Haime?)

The writer expresses his thanks to Dr. Catala for this material and for photographs of the living colonies.

Family PORITIDAE

Genus *Alveopora* de Blainville 1830

Alveopora catalai sp. nov.

Figs. 1–3

Corallum ramose, composed of gently-tapered blunt branches 5–12 mm thick, dividing about every 20 mm at approximately 30 degrees. Corallites cylindrical to subpolygonal, averaging 3.5 mm in diameter when fully developed, a few reaching 4.5 mm, their vertical axis diverging slightly from the axis of the branch. Mature calices slightly exsert, oval in outline, and slightly separated from each other. Corallite wall

formed by a palisade of 12 trabecular pillars linked by stout synapticulae, the projecting tips of the pillars forming a prominent crown of spines. The 12 septa consist of vertical rows of trabecular spines projecting inward from the mural pillars. The tapered inner ends of the septa divide and fuse deep in the calices to form a loose, irregular axial tangle. The vertical row of spines of each septum in the inner or upper side of a mature calice is commonly strengthened by a vertical bar between each spine. Dissepiments sparse, represented by a few very delicate horizontal partitions deep in the calices. On older parts of branches the mural trabeculae become greatly thickened, often obliterating the spaces between them.

The polyps (Fig. 3) are typical of *Alveopora*—12 blunt tentacles expanding horizontally from the margin of the highly extensible column wall.

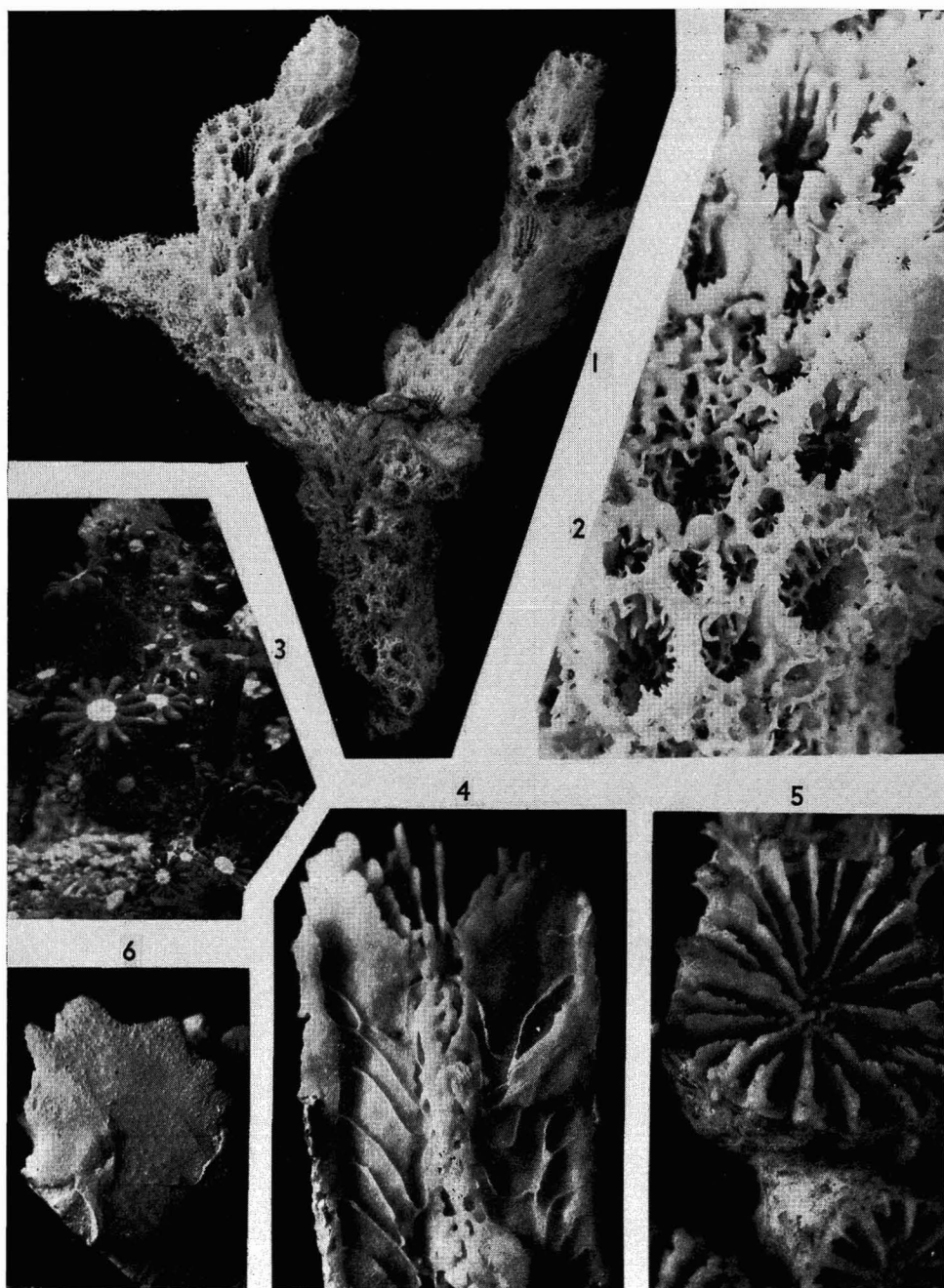
The arborescent growth form of this species alone distinguishes it from the 17 described species of Recent *Alveopora* from the Indo-Pacific, all of which are encrusting, submassive or gibbous, columnar, or clavate-ramose. None has slender branches with relatively large corallites. The nearest form is *A. allingi* Hoffmeister (1925: 81, pl. 23, fig. 2a, b, c) (25–30 m, Samoa; Great Barrier Reef; New Caledonia), a subcolumnar form with corallites of about the same size with similar development of mural and septal structures, but with calices normal to the surface of the lobate colonies.

LOCALITY: 35–40 m, Banc Gail, Nouméa lagoon, New Caledonia.

REFERENCE

HOFFMEISTER, J. E. 1925. Some corals from American Samoa and the Fiji Islands. Carnegie Inst. Washington, Publ. 343, 89 pp., 23 pls.

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FIGS. 1-3. *Alveopora catalai* Wells. 1 and 2, Holotype, $\times 1$ and $\times 4$; 3, expanded polyps, $\times 1$ (photograph by R. Catala); Banc Gail, 35-40 m, Nouméa lagoon.

FIGS. 4 and 5. *Blastomussa merleti* Wells. 4, Longitudinal section of corallite, $\times 4$, Banc Gail, 35 m, Nouméa lagoon; 5, calicular aspect, $\times 4$, outside barrier reef of New Caledonia, 40 m.

FIG. 6. *Cynarina lacrymalis* (Milne Edwards and Haime). Lateral aspect of septum, $\times 4$, Banc Gail, 35 m, Nouméa lagoon.

Part 6

Further Note on *Bantamia merleti* Wells

STUDY of additional specimens of *Bantamia merleti* Wells 1961 sent by Dr. Catala shows that the writer's assignment of this coral to a position near *Galaxea* was erroneous, and that a new genus of the Mussidae is involved.

Family MUSSIDAE

Genus *Blastomussa* gen. nov.

Colonial; colony formation by extratentacular budding from the edge-zone, producing small phaceloid tufts of erect cylindrical corallites. Corallite walls septothecal, costate, with narrow edge-zone and delicate epitheca. Septa stout, musoid, composed of several fan systems each forming a low, rounded, lobulate tooth. Columella coarsely trabecular. Dissepiments (Fig. 4) coarsely vesicular, steeply inclined downward from the wall and rising axially.

Polyps (previously described by Wells) lacking organic connection in adult stage.

TYPE SPECIES: *Bantamia merleti* Wells 1961 Figs. 4 and 5

Bantamia merleti Wells 1961. Pacific Sci. 15:189, figs. 1-4.

Having the characters of the genus as diagnosed. Corallites 10-12 mm in diameter with 24 non-uniting septa arranged 12/12.

The single holotype specimen described by the writer as a new species of *Bantamia* Yabe and Eguchi 1943 appeared to have septa with entire margins, a condition that suggested a systematic position near *Galaxea*. New topotype and other material, however, shows that the septa have the coarse lobate dentations (Figs.

4 and 5) characteristic of the mussids, especially *Cynarina* (Fig. 6).

Although *Blastomussa* resembles *Bantamia* in growth form and cylindrical corallites, the differences are more significant: the colony of *Bantamia* is less compact, the corallites are tortuous rather than regularly erect, the septa are smooth laterally (upper margins, whether dentate or not, unknown), the dissepiments are "delicate, but well-developed and usually horizontal." The relationship of *Bantamia* to *Galaxea* presumed by Yabe and Eguchi (1943), is still justified from the structures as now known, but the mussid affiliation of *Blastomussa merleti* is scarcely to be doubted.

Blastomussa is mainly distinguished from the other Recent colonial mussids (*Lobophyllia*, *Symphyllia*, *Mussa*, *Mussismilia*, *Isophyllia*, *Isophyllastraea*, and *Mycetophyllia*), all of which increase by intratentacular budding, by its extratentacular budding and such lesser characters as the small size of the corallites and proportionally fewer septa. It compares most closely in septal structure to *Cynarina*, a larger, solitary form.

LOCALITIES: Banc Gail, 35-40 m, Nouméa lagoon (holotype and topotypes); and outer slope of barrier reef of New Caledonia, 40-50 m.

REFERENCES

- WELLS, J. W. 1961. Notes on Indo-Pacific scleractinian corals. Part 3. A new reef coral from New Caledonia. Pacific Sci. 15:189-191, 5 figs.
- YABE, H., and M. EGUCHI. 1943. Note on the two Hexacoralla, *Goniocorella dumosa* (Alcock) and *Bantamia gerthi*, gen. et sp. nov. Proc. Imp. Acad. Tokyo 19:494-500, 5 figs.